



SEQUENCE LISTING

<110> MASCI, PANTALEONE PAUL

LAVIN, MARTIN FRANCIS

GAFFNEY, PATRICK JOSEPH

SOROKINA, NATALYA IGOREVNA

FILIPPOVICH, IGOR VLADIMIROVICH

<120> PLASMIN INHIBITORS FROM THE AUSTRALIAN BROWN SNAKE
PSEUDONAJA TEXTILIS TEXTILIS

<130> 017227-0193

<140> 09/700,179

<141> 2001-07-27

<150> PCT/AU99/00343

<151> 1999-05-07

<150> AU PP3450

<151> 1999-05-11

<160> 70

<170> PatentIn Ver. 3.3

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Lys Asp Arg Pro Asp Phe Cys Glu Leu Pro Ala Asp Thr Gly Pro Cys
1 5 10 15

aga gtc aga ttc cca tcc ttc tac tac aac cca gat gaa aaa aag tgc 96
Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glu Lys Lys Cys
20 25 30

cta gag ttt att tat ggt gga tgc gaa ggg aat gct aac aat ttt atc 144
Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile
35 40 45

acc aaa gag gaa tgc gaa agc acc tgt gct gcc tga 180
Thr Lys Glu Glu Cys Glu Ser Thr Cys Ala Ala
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Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glu Lys Lys Cys
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Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile
35 40 45

Thr Lys Glu Glu Cys Glu Ser Thr Cys Ala Ala
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Lys Asp Arg Pro Glu Leu Cys Glu Leu Pro Pro Asp Thr Gly Pro Cys
1 5 10 15

aga gtc aga ttc cca tcc ttc tac tac aac cca gat gaa caa aaa tgc 96
Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glu Gln Lys Cys
20 25 30

cta gag ttt att tat ggt gga tgc gaa ggg aat gct aac aat ttt atc 144
Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile
35 40 45

acc aaa gag gaa tgc gaa agc acc tgt gct gcc tga 180
Thr Lys Glu Glu Cys Glu Ser Thr Cys Ala Ala
50 55

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<212> PRT
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Lys Asp Arg Pro Glu Leu Cys Glu Leu Pro Pro Asp Thr Gly Pro Cys

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aat gcc aaa atc cca cgc ttc tac tac aac cca cgt caa cat caa tgc 96			
Asn Ala Lys Ile Pro Arg Phe Tyr Tyr Asn Pro Arg Gln His Gln Cys			
20	25	30	
ata gag ttt ctc tat ggt gga tgc gga ggg aat gct aac aat ttt aag 144			
Ile Glu Phe Leu Tyr Gly Cys Gly Asn Ala Asn Asn Phe Lys			
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 Lys Gly Asn Val Pro Arg Phe Tyr Tyr Asn Ala Asp His His Gln Cys
 20 25 30

cta aaa ttt att tat ggt gga tgt gga ggg aat gct aac aat ttt aag 144
 Leu Lys Phe Ile Tyr Gly Gly Cys Gly Asn Ala Asn Asn Phe Lys
 35 40 45

acc ata gag gaa ggc aaa agc acc tgt gct gcc tga 180
 Thr Ile Glu Glu Gly Lys Ser Thr Cys Ala Ala
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 20 25 30

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 35 40 45

Thr Ile Glu Glu Gly Lys Ser Thr Cys Ala Ala
 50 55

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Lys	Asp	Arg	Pro	Lys	Phe	Cys	Glu	Leu	Leu	Pro	Asp	Thr	Gly	Ser	Cys	
1				5				10						15		

gaa	gac	ttt	acc	gga	gcc	ttc	cac	tac	agc	aca	cgt	gat	cgt	gaa	tgc	96
								25						30		

ata	gag	ttt	att	tat	ggg	ttt	ggt	gga	tgc	gga	ggg	aat	gct	aac	aat	ttt	atc	144
Ile	Glu	Phe	Ile	Tyr	Gly	Gly	Cys	Gly	Gly	Asn	Ala	Asn	Asn	Phe	Ile			
35							40					45						

acc	aaa	gag	gaa	tgc	gaa	agc	acc	tgt	gct	gcc	tga					180
Thr	Lys	Glu	Glu	Cys	Glu	Ser	Thr	Cys	Ala	Ala						
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Glu	Asp	Phe	Thr	Gly	Ala	Phe	His	Tyr	Ser	Thr	Arg	Asp	Arg	Glu	Cys	
							20	25						30		

Ile	Glu	Phe	Ile	Tyr	Gly	Gly	Cys	Gly	Gly	Asn	Ala	Asn	Asn	Phe	Ile	
35							40					45				

Thr	Lys	Glu	Glu	Cys	Glu	Ser	Thr	Cys	Ala	Ala					
50						55									

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Lys	Asp	Arg	Pro	Lys	Phe	Cys	Glu	Leu	Pro	Ala	Asp	Ile	Gly	Pro	Trp	
1				5					10			15				

gat	gac	ttt	acc	gga	gcc	ttc	cac	tac	agc	cca	cgt	gaa	cat	gaa	tgc	96
Asp	Asp	Phe	Thr	Gly	Ala	Phe	His	Tyr	Ser	Pro	Arg	Glu	His	Glu	Cys	
20					25					30						

ata	gag	ttt	att	tat	ggt	gga	tgc	aaa	ggg	aat	gct	aac	aac	ttt	aat	144
Ile	Glu	Phe	Ile	Tyr	Gly	Gly	Cys	Lys	Gly	Asn	Ala	Asn	Asn	Phe	Asn	
35					40					45						

acc	caa	gag	caa	tgc	gaa	agc	acc	tgt	gct	gcc	tga					180
Thr	Gln	Glu	Gln	Cys	Glu	Ser	Thr	Cys	Ala	Ala						
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<213> Pseudonaja textilis

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Lys	Asp	Arg	Pro	Lys	Phe	Cys	Glu	Leu	Pro	Ala	Asp	Ile	Gly	Pro	Trp
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Asp	Asp	Phe	Thr	Gly	Ala	Phe	His	Tyr	Ser	Pro	Arg	Glu	His	Glu	Cys
20					25					30					

Ile	Glu	Phe	Ile	Tyr	Gly	Gly	Cys	Lys	Gly	Asn	Ala	Asn	Asn	Phe	Asn
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Thr	Gln	Glu	Gln	Cys	Glu	Ser	Thr	Cys	Ala	Ala					
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Glu Val Leu Thr Pro Val Ser Ser 20	
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gag gtg ctg acc ccc gtc tcc agc aag gac cgt ccg gat ttc tgt gaa Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asp Phe Cys Glu -5 -1 1 5	96
ctg cct gct gac acc gga cca tgt aga gtc aga ttc cca tcc ttc tac Leu Pro Ala Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr 10 15 20	144
tac aac cca gat gaa aaa aag tgc cta gag ttt att tat ggt gga tgc Tyr Asn Pro Asp Glu Lys Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys 25 30 35 40	192
gaa ggg aat gct aac aat ttt atc acc aaa gag gaa tgc gaa agc acc Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr 45 50 55	240
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Cys Ala Ala

<210> 16
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 -5 -1 1 5

Leu Pro Ala Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr
 10 15 20

Tyr Asn Pro Asp Glu Lys Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys
 25 30 35 40

Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr
 45 50 55

Cys Ala Ala

<210> 17
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 -20 -15 -10

gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca gag ttg tgt gaa 96
 Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Glu Leu Cys Glu
 -5 -1 1 5

ctg cct cct gac acc gga cca tgt aga gtc aga ttc cca tcc ttc tac 144
 Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr

10	15	20	
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tac aac cca gat gaa caa aaa tgc cta gag ttt att tat ggt gga tgc 192
Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys
25          30          35          40

gaa ggg aat gct aac aat ttt atc acc aaa gag gaa tgc gaa agc acc 240
Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr
45          50          55

tgt gct gcc tga
Cys Ala Ala

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<210> 18
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<213> Pseudonaja textilis

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-5 -1 1 5

Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr
10 15 20

Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys
25 30 35 40

Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr
45 50 55

Cys Ala Ala

<210> 19
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-20 -15 -10	
gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca aat ttc tgt aaa	96
Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asn Phe Cys Lys	
-5 -1 1 5	
ctg cct gct gaa acc gga cga tgt aat gcc aaa atc cca cgc ttc tac	144
Leu Pro Ala Glu Thr Gly Arg Cys Asn Ala Lys Ile Pro Arg Phe Tyr	
10 15 20	
tac aac cca cgtcaa cat caa tgc ata gag ttt ctc tat ggt gga tgc	192
Tyr Asn Pro Arg Gln His Gln Cys Ile Glu Phe Leu Tyr Gly Gly Cys	
25 30 35 40	
gga ggg aat gct aac aat ttt aag acc att aag gaa tgc gaa agc acc	240
Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Lys Glu Cys Glu Ser Thr	
45 50 55	
tgt gct gca tga	252
Cys Ala Ala	

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<210> 20
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<213> Pseudonaja textilis

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Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asn Phe Cys Lys
      -5                  -1      1                  5

Leu Pro Ala Glu Thr Gly Arg Cys Asn Ala Lys Ile Pro Arg Phe Tyr
      10                 15                  20

Tyr Asn Pro Arg Gln His Gln Cys Ile Glu Phe Leu Tyr Gly Gly Cys
      25                 30                  35                  40

Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Lys Glu Cys Glu Ser Thr
      45                 50                  55

Cys Ala Ala

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<210> 21
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Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp
-20 -15 -10

gag gtg ctg acc ccc gtc tcc agc aag gac cat cca aaa ttc tgt gaa 96
Glu Val Leu Thr Pro Val Ser Ser Lys Asp His Pro Lys Phe Cys Glu
-5 -1 1 5

ctc cct gct gaa acc gga tca tgt aaa ggc aac gtc cca cgc ttc tac 144
Leu Pro Ala Glu Thr Gly Ser Cys Lys Gly Asn Val Pro Arg Phe Tyr
10 15 20

tac aac gca gat cat cat caa tgc cta aaa ttt att tat ggt gga tgt 192
Tyr Asn Ala Asp His His Gln Cys Leu Lys Phe Ile Tyr Gly Gly Cys
25 30 35 40

gga ggg aat gct aac aat ttt aag acc ata gag gaa ggc aaa agc acc 240
Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Glu Glu Gly Lys Ser Thr
45 50 55

tgt gct gcc tga 252
Cys Ala Ala

<210> 22
<211> 83
<212> PRT
<213> Pseudonaja textilis

<400> 22
Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp
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-5 -1 1 5

Leu Pro Ala Glu Thr Gly Ser Cys Lys Gly Asn Val Pro Arg Phe Tyr
10 15 20

Tyr Asn Ala Asp His His Gln Cys Leu Lys Phe Ile Tyr Gly Gly Cys
25 30 35 40

Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Glu Glu Gly Lys Ser Thr
45 50 55

Cys Ala Ala

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      -20          -15          -10

gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca aaa ttc tgt gaa 96
Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu
      -5           -1      1          5

ctg ctt cct gac acc gga tca tgt gaa gac ttt acc gga gcc ttc cac 144
Leu Leu Pro Asp Thr Gly Ser Cys Glu Asp Phe Thr Gly Ala Phe His
      10          15          20

tac agc aca cgt gat cgt gaa tgc ata gag ttt att tat ggt gga tgc 192
Tyr Ser Thr Arg Asp Arg Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys
      25          30          35          40

gga ggg aat gct aac aat ttt atc acc aaa gag gaa tgc gaa agc acc 240
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      45          50          55

tgt gct gcc tga
Cys Ala Ala 252

<210> 24
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<212> PRT
<213> Pseudonaja textilis

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Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu
      -5           -1      1          5

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Leu Leu Pro Asp Thr Gly Ser Cys Glu Asp Phe Thr Gly Ala Phe His
 10 15 20

Tyr Ser Thr Arg Asp Arg Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys
 25 30 35 40

Gly Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr
 45 50 55

Cys Ala Ala

<210> 25
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 -20 -15 -10

gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca aag ttc tgt gaa 96
 Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu
 -5 -1 1 5

ctg cct gct gac atc gga cca tgg gat gac ttt acc gga gcc ttc cac 144
 Leu Pro Ala Asp Ile Gly Pro Trp Asp Asp Phe Thr Gly Ala Phe His
 10 15 20

tac agc cca cgt gaa cat gaa tgc ata gag ttt att tat ggt gga tgc 192
 Tyr Ser Pro Arg Glu His Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys
 25 30 35 40

aaa ggg aat gct aac aac ttt aat acc caa gag caa tgc gaa agc acc 240
 Lys Gly Asn Ala Asn Asn Phe Asn Thr Gln Glu Gln Cys Glu Ser Thr
 45 50 55

tgt gct gcc tga 252
 Cys Ala Ala

<210> 26

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<211> 83
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<213> Pseudonaja textilis

<400> 26
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Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu
      -5           -1           1           5

Leu Pro Ala Asp Ile Gly Pro Trp Asp Asp Phe Thr Gly Ala Phe His
      10          15          20

Tyr Ser Pro Arg Glu His Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys
      25          30          35          40

Lys Gly Asn Ala Asn Asn Phe Asn Thr Gln Glu Gln Cys Glu Ser Thr
      45          50          55

Cys Ala Ala

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<210> 27
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<220>
<223> Description of Artificial Sequence: Degenerate
      sense primer

<220>
<221> modified_base
<222> (21)
<223> A, T, C, G, other or unknown

<400> 27
atgaargaya grcchgaryt ngar

24

<210> 28
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Degenerate
      antisense primer

<400> 28
gtrctytcrt gytcytcy
18
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<210> 29
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Gene-specific forward primer for Txln1

<400> 29
atatatggat ccaaggaccg gcctgacttc 30

<210> 30
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<212> DNA
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<220>
<223> Description of Artificial Sequence: Gene-specific reverse primer for Txln1

<400> 30
aacgggaatt ctcagagcca cacgtgcttt c 31

<210> 31
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Gene-specific reverse primer for Txln2

<400> 31
aacgggaatt ctcatgagcc acaggttagac tc 32

<210> 32
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RACE-ready long universal reverse primer

<400> 32
ctaatacgac tcactatagg gcaaggcgtg gtaacaacgc agagt 45

<210> 33
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RACE-ready
short universal reverse primer

<400> 33
ctaatacgac tcactatagg gc

22

<210> 34
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RACE-ready
nested universal reverse primer

<400> 34
aagcagtgg aacaacgcag agt

23

<210> 35
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Txln1-gene
specific forward primer

<400> 35
atcagcggat ccatgtctgg aggt

24

<210> 36
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Txln1
gene-specific reverse primer

<400> 36
tctcctgaat tctcaggcag cacaggt

27

<210> 37
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Txln-active
peptide sequence forward primer

<400> 37
attataggat ccaaggacccg tccggat 27

<210> 38
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Gene-specific forward primer for txln2

<400> 38
attataggat ccaaggacccg tccagag 27

<210> 39
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Gene-specific forward primer for Txln3

<400> 39
aacgtcggat ccaaggacccg tccaaat 27

<210> 40
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Gene-specific forward primer for Txln4

<400> 40
aacgtcggat ccaaggacca tccaaaa 27

<210> 41
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Gene-specific forward primer for Txln5

<400> 41
aacgtcggat tcaaggacccg tccaaaa 27

<210> 42

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<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Gene-specific
      forward primer for Txln6

<400> 42
attgtcggat ccaaggacct gccaaag 27

<210> 43
<211> 408
<212> DNA
<213> Pseudonaja textilis

<220>
<221> CDS
<222> (12)..(191)

<220>
<221> sig_peptide
<222> (12)..(83)

<220>
<221> mat_peptide
<222> (84)..(191)

<400> 43
ggagcttcat c atg tct tct gga ggt ctt ctt ctc ctg ctg gga ctc ctc 50
      Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu
      -20           -15

acc ctc tgg gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca gag 98
Thr Leu Trp Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Glu
      -10          -5           -1   1      5

ttg tgt gaa ctg cct gac acc gga cca tgt aga gtc aga tcc cca 146
Leu Cys Glu Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Ser Pro
      10           15           20

tcc ttc tac tac aac cca gat gaa caa aaa tgc cta gag ttt att 191
Ser Phe Tyr Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile
      25           30           35

tatggtggat gcgaaggaa tgctaaccaa ttttatcacc aaagaggaat gcgaaagcac 251
ctgtgctgcc tgaatgagga gaccctcctg gattggatcg acagttccaa cttgacccaa 311
agaccctgct tctgcccctgg accaccctgg acacccttcc cccaaacccc accctggact 371
aattcctttt ctctgcaata aagctttggc tccagct 408

<210> 44
<211> 60

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<212> PRT
<213> Pseudonaja textilis

<400> 44
Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp
-20 -15 -10

Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Glu Leu Cys Glu
-5 -1 1 5

Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Ser Pro Ser Phe Tyr
10 15 20

Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile
25 30 35

<210> 45
<211> 59
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Formula
peptide

<220>
<221> MOD_RES
<222> (3)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn; preferably
His or Arg

<220>
<221> MOD_RES
<222> (5)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn; suitably Lys,
Asn, Glu or Asp

<220>
<221> MOD_RES
<222> (6)
<223> Hydrophobic amino acid; preferably Phe or Leu

<220>
<221> MOD_RES
<222> (8)

<220>
<221> MOD_RES
<222> (10)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
or Leu; suitably Pro or Leu

<220>
<221> MOD_RES
<222> (11)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val

or Leu, preferably Pro or Ala

<220>
<221> MOD_RES
<222> (12)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn, preferably
Glu or Asp

<220>
<221> MOD_RES
<222> (13)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
or Leu, suitably Thr or Ile

<220>
<221> MOD_RES
<222> (15)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (17)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn; suitably Lys,
Asn, Glu, Asp or Arg

<220>
<221> MOD_RES
<222> (18)
<223> Any amino acid; preferably Asp, Gly, Ala or Val

<220>
<221> MOD_RES
<222> (19)
<223> Any amino acid; suitably Phe, Asn, Lys or Arg

<220>
<221> MOD_RES
<222> (20)
<223> Any amino acid; preferably Thr, Pro, Phe or Ile

<220>
<221> MOD_RES
<222> (21)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
or Leu

<220>
<221> MOD_RES
<222> (22)
<223> Any amino acid; suitably Ala, Ser or Arg

<220>
<221> MOD_RES
<222> (24)
<223> Aromatic amino acid; preferably Tyr or His

<220>

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<221> MOD_RES
<222> (26)
<223> Any amino acid; suitably Ser or Asn

<220>
<221> MOD_RES
<222> (27)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
      or Leu; preferably Pro, Ala or Thr

<220>
<221> MOD_RES
<222> (28)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn

<220>
<221> MOD_RES
<222> (29)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn; suitably Glu,
      Asp, His or Gln

<220>
<221> MOD_RES
<222> (30)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn; preferably
      His, Lys, Arg or Gln

<220>
<221> MOD_RES
<222> (31)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn

<220>
<221> MOD_RES
<222> (33)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
      or Leu; preferably Leu or Ile

<220>
<221> MOD_RES
<222> (34)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn; suitably Glu
      or Lys

<220>
<221> MOD_RES
<222> (36)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
      or Leu; suitably Leu or Ile

<220>
<221> MOD_RES
<222> (41)
<223> Any amino acid; preferably Glu, Gly or Lys

<220>
<221> MOD_RES
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<222> (42)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val,
      Leu or Cys; preferably Gly

<220>
<221> MOD_RES
<222> (48)
<223> Any amino acid; suitably Lys, Asn or Ile

<220>
<221> MOD_RES
<222> (50)
<223> Any amino acid; preferably Lys, Gln or Ile

<400> 45
Lys Asp Xaa Pro Xaa Xaa Cys Xaa Leu Xaa Xaa Xaa Xaa Gly Xaa Cys
  1           5           10           15

Xaa Xaa Xaa Xaa Xaa Xaa Phe Xaa Tyr Xaa Xaa Xaa Xaa Xaa Cys
  20          25          30

Xaa Xaa Phe Xaa Tyr Gly Gly Cys Xaa Xaa Asn Ala Asn Asn Phe Xaa
  35          40          45

Thr Xaa Glu Glu Cys Glu Ser Thr Cys Ala Ala
  50          55

<210> 46
<211> 59
<212> PRT
<213> Pseudonaja textilis

<400> 46
Lys Asp Arg Pro Asp Phe Cys Glu Leu Pro Ala Asp Thr Gly Pro Cys
  1           5           10           15

Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glx Lys Lys Cys
  20          25          30

Leu Glx Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile
  35          40          45

Thr Lys Glu Glu Cys Glu Ser Thr Cys Gly Ser
  50          55

<210> 47
<211> 59
<212> PRT
<213> Pseudonaja textilis

<400> 47
Lys Asp Arg Pro Glu Leu Cys Glu Leu Pro Pro Asp Thr Gly Pro Cys
  1           5           10           15

Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glu Gln Lys Cys

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20

25

30

Leu Glu Phe Ile Tyr Gly Gly Cys Glu Glu Asn Ala Asn Ala Phe Ile
 35 40 45

Thr Lys Glu Glu Cys Glu Ser Thr Cys Gly Gly
 50 55

<210> 48
 <211> 62
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Taicotoxin
 associated plasmin inhibitor

<400> 48
 Lys Asp Arg Pro Lys Phe Cys His Leu Pro Pro Lys Pro Gly Pro Cys
 1 5 10 15

Arg Ala Ala Ile Pro Arg Phe Tyr Tyr Asn Pro His Ser Lys Gln Cys
 20 25 30

Glu Lys Phe Ile Tyr Gly Gly Cys His Gly Asn Ala Asn Lys Phe Lys
 35 40 45

Thr Pro Asp Glu Cys Asn Tyr Thr Cys Leu Gly Val Ser Leu
 50 55 60

<210> 49
 <211> 58
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Aprotinin

<400> 49
 Arg Pro Asp Phe Cys Leu Glu Pro Pro Tyr Thr Gly Pro Cys Lys Ala
 1 5 10 15

Arg Ile Ile Arg Tyr Phe Tyr Asn Ala Lys Ala Gly Leu Cys Gln Thr
 20 25 30

Phe Val Tyr Gly Gly Cys Arg Ala Lys Arg Asn Asn Phe Lys Ser Ala
 35 40 45

Glu Asp Cys Met Arg Thr Cys Gly Gly Ala
 50 55

<210> 50
 <211> 180
 <212> DNA

<213> Pseudonaja textilis

<220>

<221> CDS

<222> (1)..(180)

<220>

<221> modified_base

<222> (177)

<223> A, T, C or G

<400> 50

atg aag gac cgg cct gat ttt tgt gaa ctg cct gct gac acc gga cca	48
Met Lys Asp Arg Pro Asp Phe Cys Glu Leu Pro Ala Asp Thr Gly Pro	
1 5 10 15	

tgt aga gtc aga ttc cca tcc ttg tac tac aac cca gat gaa aaa aaa	96
Cys Arg Val Arg Phe Pro Ser Leu Tyr Tyr Asn Pro Asp Glu Lys Lys	
20 25 30	

tgc ctc gag ttt att tat ggt gga tgc gaa ggg aat gct aac gat ttt	144
Cys Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asp Phe	
35 40 45	

atg acc aaa gag gag tgt gaa agc acg tgt ggn agt	180
Met Thr Lys Glu Glu Cys Glu Ser Thr Cys Gly Ser	
50 55 60	

<210> 51

<211> 60

<212> PRT

<213> Pseudonaja textilis

<400> 51

Met Lys Asp Arg Pro Asp Phe Cys Glu Leu Pro Ala Asp Thr Gly Pro	
1 5 10 15	

Cys Arg Val Arg Phe Pro Ser Leu Tyr Tyr Asn Pro Asp Glu Lys Lys	
20 25 30	

Cys Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asp Phe	
35 40 45	

Met Thr Lys Glu Glu Cys Glu Ser Thr Cys Gly Ser	
50 55 60	

<210> 52

<211> 180

<212> DNA

<213> Pseudonaja textilis

<220>

<221> CDS

<222> (1)..(180)

<220>
 <221> modified_base
 <222> (177)
 <223> A, T, C or G

<400> 52
 atg aag gac cgg cct gag ttg tgt gaa ctg cct cct gac acc gga cca 48
 Met Lys Asp Arg Pro Glu Leu Cys Glu Leu Pro Pro Asp Thr Gly Pro
 1 5 10 15

tgt aga gtc aga ttc cca tcc ttg tac tac aac cca gat gaa caa aaa 96
 Cys Arg Val Arg Phe Pro Ser Leu Tyr Tyr Asn Pro Asp Glu Gln Lys
 20 25 30

tgc ctc gag ttt att tat ggt gga tgc gaa gag aat gat aac gct ttt 144
 Cys Leu Glu Phe Ile Tyr Gly Gly Cys Glu Glu Asn Asp Asn Ala Phe
 35 40 45

atg acc aaa gag gag tgt gaa agc acg tgt ccn ggt 180
 Met Thr Lys Glu Glu Cys Glu Ser Thr Cys Pro Gly
 50 55 60

<210> 53
 <211> 60
 <212> PRT
 <213> Pseudonaja textilis

<400> 53
 Met Lys Asp Arg Pro Glu Leu Cys Glu Leu Pro Pro Asp Thr Gly Pro 15
 1 5 10 15

Cys Arg Val Arg Phe Pro Ser Leu Tyr Tyr Asn Pro Asp Glu Gln Lys
 20 25 30

Cys Leu Glu Phe Ile Tyr Gly Gly Cys Glu Glu Asn Asp Asn Ala Phe
 35 40 45

Met Thr Lys Glu Glu Cys Glu Ser Thr Cys Pro Gly
 50 55 60

<210> 54
 <211> 408
 <212> DNA
 <213> Pseudonaja textilis

<400> 54
 ggagcttcat catgtttctt ggaggttttc ttctcctgct gggactccttc accctctggg 60
 aggtgctgac ccccgcttcc agcaaggacc gtccagagtt gtgttaactg cttcttgaca 120
 ccggaccatg tagagtccaga tccccatctt tctactacaa cccagatgaa caaaaatgcc 180
 tagagtttat ttatggtgaa tgcgaaggaa atgctaaccat ttttatcac caaagaggaa 240
 tgcgaaagca cctgtgtctgc ctgaatgagg agaccctctt ggattggatc gacagttcca 300
 acttgaccctt aagacccttgc ttctggccctt gaccaccctt gacacccttc ccccaaacc 360
 caccctggac taattccctt tctctgcaat aaagctttgg ttccagct 408

<210> 55
 <211> 83
 <212> PRT
 <213> Pseudonaja textilis

Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp
 1 5 10 15

Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asp Phe Cys Glu
 20 25 30

Leu Pro Ala Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr
 35 40 45

Tyr Asn Pro Asp Glu Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys
 50 55 60

Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr
 65 70 75 80

Cys Ala Ala

<210> 56
 <211> 252
 <212> DNA
 <213> Pseudonaja textilis

<400> 56
 atgtcttctg gaggtcttct tctccctgctg ggactcctca ccctctggga ggtgctgacc 60
 cccgcttcca gcaaggaccg tccggatttc tgtgaactgc ctgctgacac cggaccatgt 120
 agagtcatat cccatcctt ctactacaac ccagatgaaa aaaagtgcct agagtttatt 180
 tatggtgat gcgaaaggaa tgctaacaat ttatcacca aagaggaatg cgaaagcacc 240
 tgtgctgcct ga 252

<210> 57
 <211> 83
 <212> PRT
 <213> Pseudonaja textilis

<400> 57
 Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp
 1 5 10 15

Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Glu Leu Cys Glu
 20 25 30

Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr
 35 40 45

Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys
 50 55 60

Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr
 65 70 75 80

Cys Ala Ala

<210> 58
 <211> 252
 <212> DNA
 <213> Pseudonaja textilis

<400> 58
 atgtttctg gaggtttct ttcctgctg ggactcctca ccctctggga ggtgctgacc 60
 cccgtctcca gcaaggaccg tccagagttt tgcactgc ctcctgacac cggaccatgt 120
 agatcgat tcccatcctt ctactacaac ccagatgaac aaaaatgcct agagtttatt 180
 tatggat gccaaggaa tgctaaat tttatcacca aagaggaatg cgaaagcacc 240
 tgtgctgcct ga 252

<210> 59
 <211> 83
 <212> PRT
 <213> Pseudonaja textilis

<400> 59
 Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp
 1 5 10 15

Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asn Phe Cys Lys
 20 25 30

Leu Pro Ala Glu Thr Gly Arg Cys Asn Ala Lys Ile Pro Arg Phe Tyr
 35 40 45

Tyr Asn Pro Arg Gln His Gln Cys Ile Glu Phe Leu Tyr Gly Gly Cys

Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Lys Glu Cys Glu Ser Thr
 65 70 75 80

Cys Ala Ala

<210> 60
 <211> 252
 <212> DNA
 <213> Pseudonaja textilis

<400> 60
 atgtttctg gaggtttct ttcctgctg ggactcctca ccctctggga ggtgctgacc 60
 cccgtctcca gcaaggaccg tccaaatttc tgtaaactgc ctgctgaaac cggacgatgt 120
 aatgcaaaaa tcccacgctt ctactacaac ccacgtcaac atcaatgcat agagttctc 180
 tatggat gccaaggaa tgctaaat ttaagacca ttaaggaatg cgaaagcacc 240
 tgtgctgcat ga 252

<210> 61
 <211> 83
 <212> PRT
 <213> Pseudonaja textilis

<400> 61
 Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp
 1 5 10 15

Glu Val Leu Thr Pro Val Ser Ser Lys Asp His Pro Lys Phe Cys Glu
 20 25 30

Leu Pro Ala Asp Thr Gly Ser Cys Lys Gly Asn Pro Val Arg Phe Tyr
 35 40 45

Tyr Asn Ala Asp His His Gln Cys Leu Lys Phe Ile Tyr Gly Gly Cys
 50 55 60

Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Glu Glu Cys Lys Ser Thr
 65 70 75 80

Cys Ala Ala

<210> 62
 <211> 252
 <212> DNA
 <213> Pseudonaja textilis

<400> 62
 atgtcttctg gaggtcttct ttcctgtctg ggactcctca ccctctggga ggtgctgacc 60
 cccgtctcca gcaaggacca tccaaaattc tgtgaactcc ctgctgaaac cggatcatgt 120
 aaaggcaacg tcccacgct ctactacaac gcagatcatc atcaatgcct aaaatttatt 180
 tatggtggat gtggagggaa tgctaacaat ttaagacca tagaggaagg caaaagcacc 240
 tgtgctgcct ga 252

<210> 63
 <211> 83
 <212> PRT
 <213> Pseudonaja textilis

<400> 63
 Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp
 1 5 10 15

Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu
 20 25 30

Leu Leu Pro Asp Thr Gly Ser Cys Glu Asp Phe Thr Gly Ala Phe His
 35 40 45

Tyr Ser Thr Arg Asp Arg Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys
 50 55 60

Gly Cys Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr

65

70

75

80

Cys Ala Ala

<210> 64
 <211> 252
 <212> DNA
 <213> Pseudonaja textilis

<400> 64
 atgtttctg gaggtttct ttcctgctg ggactcctca ccctctggga ggtgctgacc 60
 cccgtctcca gcaaggaccg tccaaaattc tgtgaactgc ttctgacac cggatcatgt 120
 gaagacttta ccggagcctt ccactacagc acacgtgatc gtgaatgcat agagtttatt 180
 tatggat gccggaggaa tgctaacaat ttatcacca aagaggaatg cgaaagcacc 240
 tgtgctgcct ga 252

<210> 65
 <211> 83
 <212> PRT
 <213> Pseudonaja textilis

<400> 65
 Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp
 1 5 10 15

Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu
 20 25 30

Leu Pro Ala Asp Ile Gly Pro Cys Asp Asp Phe Thr Gly Ala Phe His
 35 40 45

Tyr Ser Pro Arg Glu His Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys
 50 55 60

Lys Gly Asn Ala Asn Asn Phe Asn Thr Gln Glu Glu Cys Glu Ser Thr
 65 70 75 80

Cys Ala Ala

<210> 66
 <211> 252
 <212> DNA
 <213> Pseudonaja textilis

<400> 66
 atgtttctg gaggtttct ttcctgctg ggactcctca ccctctggga ggtgctgacc 60
 cccgtctcca gcaaggaccg tccaaagtgc tgtgaactgc ctgctgacat cggaccatgg 120
 gatgacttta ccggagcctt ccactacagc ccacgtgaac atgaatgcat agagtttatt 180
 tatggat gcaaaggaa tgctaacaac ttatcacca aagagcaatg cgaaagcacc 240
 tgtgctgcct ga 252

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<210> 67
<211> 59
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Formula
      peptide

<220>
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<222> (3)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn

<220>
<221> MOD_RES
<222> (5)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn

<220>
<221> MOD_RES
<222> (6)
<223> Hydrophobic amino acid

<220>
<221> MOD_RES
<222> (8)

<220>
<221> MOD_RES
<222> (10)..(11)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
      or Leu

<220>
<221> MOD_RES
<222> (12)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn

<220>
<221> MOD_RES
<222> (13)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
      or Leu

<220>
<221> MOD_RES
<222> (15)
<223> Any amino acid from Table 1 or Table 2 in the specification
      as filed

<220>
<221> MOD_RES
<222> (17)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn
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<220>
<221> MOD_RES
<222> (18)..(20)
<223> Any amino acid from Table 1 or Table 2 in the specification
      as filed

<220>
<221> MOD_RES
<222> (21)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
      or Leu

<220>
<221> MOD_RES
<222> (22)
<223> Any amino acid from Table 1 or Table 2 in the specification
      as filed

<220>
<221> MOD_RES
<222> (24)
<223> Aromatic amino acid

<220>
<221> MOD_RES
<222> (26)
<223> Any amino acid from Table 1 or Table 2 in the specification
      as filed

<220>
<221> MOD_RES
<222> (27)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
      or Leu

<220>
<221> MOD_RES
<222> (28)..(31)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn

<220>
<221> MOD_RES
<222> (33)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
      or Leu

<220>
<221> MOD_RES
<222> (34)
<223> Lys, Arg, His, Asp, Glu, Gln or Asn

<220>
<221> MOD_RES
<222> (36)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val
      or Leu
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<220>
<221> MOD_RES
<222> (41)
<223> Any amino acid from Table 1 or Table 2 in the specification
      as filed

<220>
<221> MOD_RES
<222> (42)
<223> Neutral amino acid, Pro, Ala, Gly, Ser, Thr, Val,
      Leu or Cys

<220>
<221> MOD_RES
<222> (48)
<223> Any amino acid from Table 1 or Table 2 in the specification
      as filed

<220>
<221> MOD_RES
<222> (50)
<223> Any amino acid from Table 1 or Table 2 in the specification
      as filed

<400> 67
Lys Asp Xaa Pro Xaa Xaa Cys Xaa Leu Xaa Xaa Xaa Xaa Gly Xaa Cys
      1           5           10          15

Xaa Xaa Xaa Xaa Xaa Xaa Phe Xaa Tyr Xaa Xaa Xaa Xaa Xaa Cys
      20          25          30

Xaa Xaa Phe Xaa Tyr Gly Gly Cys Xaa Xaa Asn Ala Asn Asn Phe Xaa
      35          40          45

Thr Xaa Glu Glu Cys Glu Ser Thr Cys Ala Ala
      50          55

<210> 68
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 68
Glu Cys Glu Ser Thr Cys Ala Ala
      1           5

<210> 69
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

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<400> 69

Asn Ala Asn Asn Phe
1 5

<210> 70

<211> 4
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 70

Tyr Gly Gly Cys
1